

TO STANDARDISE THE METHOD FOR THE PREPARATION OF HIGHLY NUTRITIOUS AND HEALTH GIVING HERBAL FRUIT JAM

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ABSTRACT

With the hectic life style being more than the norm than the exception, consumers demand convenience in the foods they eat along with the nutritional value. It is not surprising that vending machines and office coffee services are playing an increasing important role and while obesity and heart disease continue to plague us, Nutrition along with great taste is a driving factor for snacks we choose. Product like jam, jellies, soup, preserves, sauces etc. are lined to the distribution channel to answer the call of hunger consumers.

Fruits have formed an essential dietary supplements since the earliest times, providing nutritionally valuable components. Fruits seem to be the food enjoyed by the mankind from very earliest of times. Perhaps the first food ate was a fruit of some kind. Usually fruit mean the fleshy pulpy moisture laden product full of aroma and flavor unlike the nuts, legumes and cereals which are dry.

Botanically fruit is the matured ovary of a plant with accessory parts. It is a succulent, pulpy edible substance covering the seed of flowering plant and trees because fertile and productive is often referred to as fruit.

In terms of nutrition fruits are very good source of several vitamins, minerals, and dietary fiber, all of which are essential for good health. Fruits are generally very efficient source of vitamin C and the yellow and deep orange colored fruit are excellent sort of beta carotene, the precursor of vitamin A. Fruits like amla is rich in vitamin C and pectin. It is used in treating chronic dysentery, bronchitis, diabetes, jaundice and cough. Apple contain good amount of calcium, vitamin A and vitamin C and also rich in iron. Apple will aid the digestive system and related.

KEYWORDS :- Peeling, Pulping, Sterilizing, Waxing, Caping, Pasteurization, Sterilization & Blanching

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INTRODUCTION

With the hectic Lifestyle being more than the normal than the exception, consumers demand convenience in the food they eat along with nutritional value. Nutrition along with the great taste is the driving factor for snacks we choose. Products like jams, jellies, soups, preserves, sauces etc are lined to distribution channels to answer the call of hunger of consumers.

Fruits have formed an essential dietary supplement since the earliest times, providing nutritionally valuable components. Fruits mean the fleshy, pulpy, moisture-laden product, full of aroma and flavour unlike the nuts, legumes and cereals which are dry.

In terms of Nutrition, Fuits are a very good source of several vitamins, minerals, salts, and dietary fibre, all of which are essential for good health. Fruits are very efficient source of vitamin C and the yellow and orange coloured fruits are excellent source of Beta carotene, the precursor of vitamin A. Fruits like Amla is rich in vitamin

C and pectin. It is used in treating chronic dysentery, diabetes, jaundice and cough. Apple contains good amount of calcium, vitamin A, vitamin C and also rich in iron. Papaya is a good source of beta carotene. Pineapple is a good source of Vitamin B1 and rich in vitamin C. Bael is a good source of riboflavin and ascorbic acid.

On the other hand herbs have played an important part in man's life for countless years. Some herbs were given magical properties probably because a medicinal values. Ginger is effective against cold, cough etc. Mint is used for stomach disorders, rheumatism. Basil leaves are useful in treatment of croup and is commonly a remedy for cough. Aloe-vera is a rich source of minerals and has an anti-inflammatory benefits.

Herbal fruit jam enriched with benefits of fruits like apple, amla, papaya, bael, pineapple as well as herbs like basil leaves, mint, Ginger, aloe vera is highly nutritious as it contains vitamins, minerals and dietary fibres and also having medicinal value derived from herbs present in it. Therefore combination of fruits and herbs are good for human health.

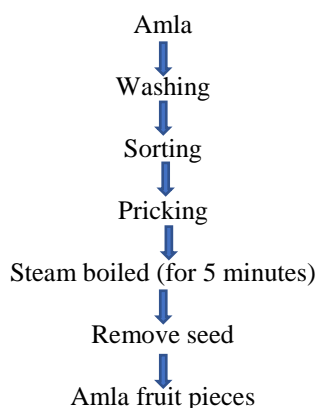
Herbal fruit jam was prepared by selecting ripe and mature fruits. They were subjected to washing to remove dirt and dust followed by peeling, blanching, and sieving. Then calculated amount of sugar was added followed by cooking till T.S.S is 68 degree bricks at 105 degree Celsius. Herbs and pectin was added followed by slight cooking and constant stirring. Jam was ready which was filled hot into bottles. The product was evaluated for colour, taste, flavour and overall acceptance. Physico chemical analysis was conducted by measuring pH, T S.S and titrable acidity and ash content. Herbal fruit jam with good body and overall excellent acceptability has been standardized.

MATERIAL AND METHODS

Treatment of Amla for Jam Preparation

Fresh Amla were taken, washed and pricked with fork. They were then steam cooked with 2% salt for 5 minutes

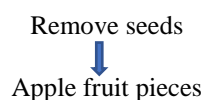
Then seeds were removed from fruit



Treatment of Apple for jam preparation:-

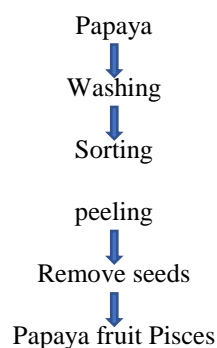
Take fresh apples, then peeled them and then remove seeds from them





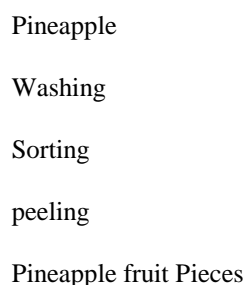
Treatment of Papaya for Jam Preparation

Washed fresh papaya, then peeled it properly and remove seeds from them



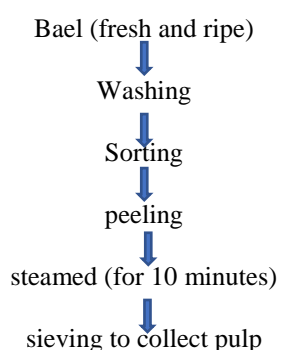
Treatment of Pineapple for Jam Preparation

Washed fresh pineapple, then peeled it properly



Treatment of BAEL for Jam Preparation

Washed BAEL fruit, steam good for 10 minutes and sieved it to remove seeds.



Treatment of Herbs for Jam Preparation

1. Ginger

50 gram of fresh Ginger was washed, peeled, chopped and juice was extracted. Juice was then filtered and collected.

2. Basil Leaves

Fresh leaves were taken they were washed and juice was attracted out of them & then filtered with the help of muslin cloth.

3. Mint Leaves

Fresh leaves were washed and juice was extracted and juice was then filtered and collected.

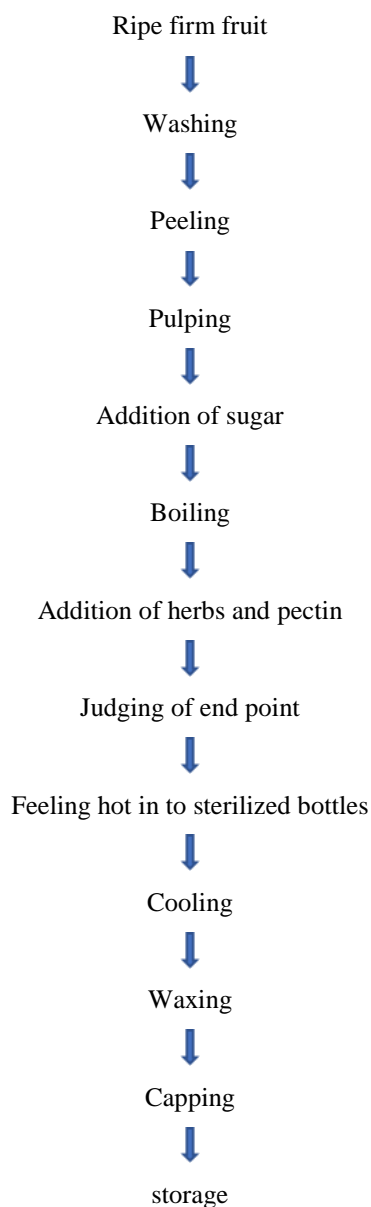
4. Aloe-Vera

Selected aloe vera leaves and washed trimmed the aloe-vera leaves to remove ends and sides. Remove the gel with the help of knife. Grind the gel and then filtered and collected.

PROCEDURE FOR PREPERATION OF JAM

Herbal fruit jam was prepared by selecting ripe and mature fruits. They are subjected to washing to remove dirt and dust followed by peeling, blanching and sieving. Then calculated amount of sugar was added followed by coking till T.S.S is 68 degree brix at 105 degree Celsius. Then herbs and pectin was added followed by slight cooking with constant with stirring jam was ready which was hot filled in to bottles

Flow Sheet for Preparation of Jam



SENSORY ANALYSIS

The coded sample was subjected to sensory evaluation by semi trained panel of 10 persons. The product was evaluated for colour, taste, flavour and overall acceptance. The evaluation was carried out by numerical scoring test. The sample and questionnaire for numerical scoring test was given to the panellists

PHYSICO-CHEMICAL ANALYSIS

1. pH

Ph of determined by digital type of ph metre.

2. Total Soluble Solids(T.S.S)

The tss is defined as the amount of sugar and soluble mineral present in the fruits and vegetables The methods for its determination was by hand refractometer.

3. Titrable Acidity

The sample of herbal fruit jam was analysed to find out it acidity. It was determined by titrating the jam against freshly prepared NaOH using phenolphthalein as an indicator.

$$\% \text{Acidity} = \frac{\text{Titration value} \times \text{Normality} \times \text{Equivalent Weight} \times 100}{\text{Weight of Sample} \times 100}$$

$$\text{Weight of Sample} \times 100$$

4. ASH Content

Ash content was determined in muffle furnace

RESULTS AND DISCUSSIONS

Thus it was concluded that herbal fruit jam has an overall excellent acceptability.

REFERENCES

1. Deca bidvoct; Sethi, Vijay Suneja, Poonam 'Physico Chemical changes of lime - Anola spice beverage during storage' *'Journal of Food Science And Technology'* May – June²⁰⁰¹.41 : 329
2. Kumar, Srivastava, R.P. *Fruits and vegetables preservation principles and practices* May (2003) :181
3. Khetarpaul, N. *Food processing and preservation* Daya publishing housed New Delhi (2005), :3-9
4. Shasmala, T.R. and Shri Jyothi, (1999) *Honey Indian Food Industry* Vol. 18, PP- 349-359
5. Subbulakshmi. F. and Shobha. A. Upidi, *Food Processing and Preservation* New Age International Pvt. Ltd. Ansari Toad, the Daryaganj, New Delhi (2001),:-88
6. Shakuntlamanay, N. 'Food Fact And Principles' 2001,(2nd ed) New Age International Pvt. Limited New Delhi, 2001:188,190
7. Purthi, J.S. *Spices and Condiments*(1st ed.) published by National Book Trust, New Delhi (1976).pp:38,39,147,148,149,175-178
8. Gopalan Indria and Mohanram, M *Fruits* (2nd ed.) published by Indian Council of Medical Research, Hyderabad (1996).pp:3-6, 39-43.
8. Singh A.R., Singh, Bijendra and Singh Lakhi Ram. *A Text book of Fruit production* (1st ed.) published by Aman Publishing

- House, Merrut(1997).pp.57, 58, 65, 85, 110-112.
9. Lal, G., Sidappa G.S. and Tondon, G.L. *Preservation of Fruits and Vegetables*(3rd ed.) published by Indian Council of Agriculture Research, New Delhi (1998) pp: 156, 163, 168.
 10. Premi, B.R. (1999), *Physical - Chemical changes during storage of dry amla powder*, *Journal of Food Science and Technology*. 36 : 224
 11. Kulwal, L.V. and Thomas, D. (2001), *studies on preparation of Jam from ber fruit*, *Beverages and Food World*. 28:20,21
 12. Shakuntlamanay, N. and Shadaksharaswamy, M. *Food Facts and principles* (2nd ed) New Age International Publishers, Ansari Road, Daryaganj, New Delhi (2001). Pp:165-168, 183, 194, 249.
 13. Shirivastava, R.P and Kumar, Sanjeev. *Fruits and Vegetable preservation* (2nd ed) Internal Book Distribution Company, Lucknow(2001). pp: 174, 176, 186, 180.
 14. Sirlakshmi, B. *Food Science* (3rd ed). New age International Publishers, Ansari Road, Darya Ganj, New Delhi (2003).pp: 171, 172, 173, 201
 15. Ravenwar, D.S. and Sakhole, B.K. (2003), *Studies on preparation of recipe standardization of papaya toffee*, *Beverage and Food World*.32:42:43
 16. Sharma, G., and S. Lakhawat. "Impact of Nutrition Education Programme on Lactating Women (0-12 Months) of Baran District of Rajasthan." *International Journal of Applied and Natural Sciences (IJANS)* ISSN(P): 2319-4014; ISSN(E): 2319-4022 Vol. 6, Issue 5, Aug–Sep 2017; 1-6
 17. Sharma, Vishakha, and Vishakha Singh. "Impact of education intervention on nutrition knowledge of adolescent girls." *International Journal of Applied and Natural Sciences (IJANS)* 6.5: 117-122.
 18. Offia Olua, B. I., Q. C. Eluwa, and C. Abuajah. "Incorporation of Papain into Ice Cream: Impact on Pawpaw (Carica Papaya) Ice Cream Quality." *IASSET: International Journal of Biology, Biotechnology and Food Science (IASSET: IJBBS)* 1.1: 7-22.

WEBSITE VISITED

- www.aloeveraexprocen.com/site/1345660/page/818580-50K
- www.beverageandfoodworld.com
- www.loveindia.com
- www.Whfoods.com
- www.botanical.com
- www.hort.purdue.edu
- www.home-remedies-guides.com
- www.hindu.com
- www.wikipedia.com